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<110> Koide, Shohei
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<130> 109.050US1
<150> US 60/217,474
<151> 2000-07-11
<160> 121
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<210> 1
<211> 14
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<223> Anti-hen egg lysozyme (HEL) antibody.
Ala Arg Glu Arg Asp Tyr Arg Leu Asp Tyr Trp Gly Gln Gly
<210> 2
<211> 17
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<213> Unknown
<220>
<223> An anti-HEL single VH domain termed VH8.
<400> 2
Ala Arg Gly Ala Val Val Ser Tyr Tyr Ala Met Asp Tyr Trp Gly Gln
                 5
1
                                     10
                                                         15
Gly
<210> 3
<211> 16
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Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile
                 5
<210> 4
<211> 12
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<220>
<223> Mutant D1.3-1.
<400> 4
```

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'n
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```
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                 5
<210> 5
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<212> PRT
<213> Artificial Sequence
<220>
<223> Mutant D1.3-2.
<400> 5
Tyr Ala Val Arg Asp Tyr Arg Leu Asp Tyr Pro Ile
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<212> PRT
<213> Artificial Sequence
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<223> Mutant D1.3-3.
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 1
                 5
                                     10
<210> 7
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<400> 7
Tyr Ala Val Arg Asp Tyr Arg Leu Asp Tyr Lys Pro Ile
<210> 8
<211> 11
<212> PRT
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                                     10
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<211> 14
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<213> Artificial Sequence
<220>
<223> Mutant D1.3-6.
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```
<400> 9
     Tyr Ala Val Thr Arg Asp Tyr Arg Leu Ser Ser Lys Pro Ile
                       5
     <210> 10
     <211> 15
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> Mutant D1.3-7.
     <400> 10
     Tyr Ala Val Thr Glu Arg Asp Tyr Arg Leu Ser Ser Lys Pro Ile
     <210> 11
     <211> 15
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> Mutant VH8-1.
ij,
     <400> 11
ų.
     Tyr Ala Val Ala Val Val Ser Tyr Tyr Ala Met Asp Tyr Pro Ile
1
     <210> 12
     <211> 16
     <212> PRT
L
     <213> Artificial Sequence
8
<220>
44
     <223> Mutant VH8-2.
h
<400> 12
     Tyr Ala Val Thr Ala Val Val Ser Tyr Tyr Ala Ser Ser Lys Pro Ile
                      5
                                          10
     <210> 13
     <211> 59
     <212> DNA
     <213> Artificial Sequence
     <223> Oligonucleotide FN1F.
     <400> 13
     cgggatccca tatgcaggtt tctgatgttc cgcgtgacct ggaagttgtt gctgcgacc
                                                                              59
     <210> 14
     <211> 55
     <212> DNA
     <213> Artificial Sequence
     <223> Oligonucleotide FN1R.
```

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				*	
	<400> 14 taactgcagg agcatcccag ctga	cagca ggctagt	cgg ggtcgcagca	acaac	55
	<210> 15				
	<211> 51				
	<212> DNA				
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	<223> Oligonucleotide FN2F				
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	ctcctgcagt taccgtgcgt tatt	accgta tcacgta	.cgg tgaaaccggt	g	51
	.210. 16				
	<210 > 16				
	<211> 39				
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	ALLE ALCILIOTAL DEQUENCE				
	<220>				
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	<210> 17				
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Į.	<213> Artificial Sequence				
F					
di:	<220>				
Ų	<223> Oligonucleotide FN3F				
77.	<400> 17				
7 1	aggaattcac tgtacctggt tccaa	igtcta ctgctac	cat cagcgg		46
ds	<210> 18				
als:	<211> 38	•			
	<212> DNA				
alia.	<213> Artificial Sequence			f	
	<220>				
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	<400> 18				
	gtatagtcga cacccggttt caggo	cgctg atggtag	С		38
	010 10				
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	cgggtgtcga ctataccatc actgt	atacg ct			32

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     <223> Oligonucleotide gene3R.
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     <211> 36
     <212> DNA
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     <223> Oligonucleotide 38TAABg1II.
     <400> 26
     ctgttactgg ccgtgagatc taaccagcga gctcca
                                                                                36
     <210> 27
     <211> 51
     <212> DNA
     <213> Artificial Sequence
<220>
L.
     <223> Oligonucleotide BC3.
<221> misc_feature
     <222> (1)...(51)
     <223> n = A, T, C \text{ or } G
N
     <400> 27
     gatcagctgg gatgctcctn nknnknnknn knnktattac cgtatcacgt a
                                                                               51
     <210> 28
     <211> 57
والسال
     <212> DNA
<213> Artificial Sequence
<220>
     <223> Oligonucleotide FG2.
     <221> misc feature
     <222> (1)...(57)
     <223> n = A, T, C or G
     <400> 28
     tgtatacgct gttactggcn nknnknnknn knnknnknnk tccaagccaa tctcgat
                                                                               57
     <210> 29
     <211> 47
     <212> DNA
     <213> Artificial Sequence
     <220>
     <223> Oligonucleotide FG3.
     <221> misc_feature
```

```
<222> (1) ... (47)
      <223> n = A,T,C or G
      <400> 29
      ctgtatacgc tgttactggc nnknnknnkn nkccagcgag ctccaag
                                                                                 47
      <210> 30
      <211> 51
      <212> DNA
      <213> Artificial Sequence
      <220>
      <223> Oligonucleotide FG4.
      <221> misc_feature
      <222> (1)...(51)
     <223> n = A, T, C \text{ or } G
     <400> 30
     catcactgta tacgctgtta ctnnknnknn knnknnktcc aagccaatct c
                                                                                 51
     <210> 31
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the BC loop of ubiquitin-binding
L.
            monobody clone 211.
1
     <400> 31
T.
     Cys Ala Arg Arg Ala
E
C
     <210> 32
أثمو
     <211> 7
<212> PRT
-
     <213> Artificial Sequence
C
)
Janik
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 211.
     <400> 32
     Arg Trp Ile Pro Leu Ala Lys
     <210> 33
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 212.
     <400> 33
     Cys Trp Arg Arg Ala
```

```
1
                       5
      <210> 34
      <211> 7
      <212> PRT
      <213> Artificial Sequence
      <220>
      <223> The sequence of the FG loop of ubiquitin-binding
            monobody clone 212.
      <400> 34
     Arg Trp Val Gly Leu Ala Trp
     <210> 35
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 213.
     <400> 35
     Cys Lys His Arg Arg
     <210> 36
     <211> 7
     <212> PRT
'n
     <213> Artificial Sequence
₽
C
     <220>
7
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 213.
1
     <400> 36
     Phe Ala Asp Leu Trp Trp Arg
     <210> 37
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 214.
     <400> 37
     Cys Arg Arg Gly Arg
     <210> 38
     <211> 7
    <212> PRT
    <213> Artificial Sequence
```

```
<223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 214.
     <400> 38
     Arg Gly Phe Met Trp Leu Ser
     <210> 39
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 215.
     <400> 39
     Cys Asn Trp Arg Arg
      1
     <210> 40
     <211> 7
<212> PRT
     <213> Artificial Sequence
<220>
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 215.
T
     <400> 40
     Arg Ala Tyr Arg Tyr Arg Trp
2
                      5
<210> 41
<211> 5
     <212> PRT
Ċ
     <213> Artificial Sequence
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 411.
     <400> 41
     Ser Arg Leu Arg Arg
     <210> 42
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 411.
     <400> 42
```

Pro Pro Trp Arg Val

<220>

```
1
                       5
     <210> 43
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of ubiquitin-binding
           monobody clone 422.
     <400> 43
     Ala Arg Trp Thr Leu
     <210> 44
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 422.
<400> 44
     Arg Arg Trp Trp Trp
     <210> 45
     <211> 5
     <212> PRT
     <213> Artificial Sequence
3
<220>
W. .
     <223> The sequence of the BC loop of ubiquitin-binding
H
           monobody clone 424.
.
H
D
     <400> 45
     Gly Gln Arg Thr Phe
      1
     <210> 46
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of ubiquitin-binding
           monobody clone 424.
     <400> 46
     Arg Arg Trp Trp Ala
      1
     <210> 47
     <211> 5
     <212> PRT
     <213> Unknown
```

```
<220>
      <223> The sequence of the BC loop of WT from library #2.
      <400> 47
     Ala Val Thr Val Arg
     <210> 48
     <211> 7
     <212> PRT
     <213> Unknown
     <220>
     <223> The sequence of the FG loop of WT from library #2.
     <400> 48
     Arg Gly Asp Ser Pro Ala Ser
     <210> 49
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone pLB24.1.
U
     <400> 49
     Cys Asn Trp Arg Arg
      1
ļ.
<210> 50
     <211> 7
<212> PRT
.
.
     <213> Artificial Sequence
<223> The sequence of the FG loop of clone pLB24.1.
þ
     <400> 50
     Arg Ala Tyr Arg Tyr Arg Trp
     1
     <210> 51
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
    <223> The sequence of the BC loop of clone pLB24.2.
     <400> 51
    Cys Met Trp Arg Ala
    <210> 52
    <211> 7
    <212> PRT
```

```
<213> Artificial Sequence
      <220>
      <223> The sequence of the FG loop of clone pLB24.2.
      <400> 52
     Arg Trp Gly Met Leu Arg Arg
     <210> 53
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone pLB24.3.
     <400> 53
     Ala Arg Met Arg Glu
     <210> 54
     <211> 7
     <212> PRT
     <213> Artificial Sequence
<223> The sequence of the FG loop of clone pLB24.3.
     <400> 54
     Arg Trp Leu Arg Gly Arg Tyr
N
     1
£
C
     <210> 55
     <211> 5
4
     <212> PRT
ļ.
     <213> QArtificial Sequence
<223> The sequence of the BC loop of clone pLB24.4.
     <400> 55
     Cys Ala Arg Arg Arg
     <210> 56
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone pLB24.4.
     <400> 56
     Arg Arg Ala Gly Trp Gly Trp
     <210> 57
```

```
<211> 5
      <212> PRT
      <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB24.5.
     <400> 57
     Cys Asn Trp Arg Arg
     <210> 58
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone pLB24.5.
     <400> 58
     Arg Ala Tyr Arg Tyr Arg Trp
<210> 59
Œ
     <211> 5
     <212> PRT
     <213> Artificial Sequence
W
     <223> The sequence of the BC loop of clone pLB24.6.
TŲ.
     <400> 59
     Arg Trp Arg Glu Arg
, J. J.
     <210> 60
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone pLB24.6.
     <400> 60
    Arg His Pro Trp Thr Glu Arg
     1
    <210> 61
    <211> 5
    <212> PRT
    <213> Artificial Sequence
    <223> The sequence of the BC loop of clone pLB24.7.
    <400> 61
    Cys Asn Trp Arg Arg
```

```
<210> 62
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone pLB24.7.
     <400> 62
     Arg Ala Tyr Arg Tyr Arg Trp
                       5
     <210> 63
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB24.8.
     <400> 63
     Glu Arg Arg Val Pro
     <210> 64
     <211> 7
     <212> PRT
     <213> Artificial Sequence
L.
4
     <220>
ļ.
     <223> The sequence of the FG loop of clone pLB24.8.
N
     <400> 64
≘
Arg Leu Leu Trp Gln Arg
J. ...
H
     <210> 65
H
     <211> 5
<212> PRT
    <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB24.9.
    <400> 65
    Gly Arg Gly Ala Gly
    <210> 66
    <211> 7
    <212> PRT
    <213> Artificial Sequence
    <220>
    <223> The sequence of the FG loop of clone pLB24.9.
    <400> 66
    Phe Gly Ser Phe Glu Arg Arg
```

```
5
     <210> 67
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone pLB24.11.
     <400> 67
     Cys Arg Trp Thr Arg
      1
     <210> 68
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone pLB24.11.
     <400> 68
     Arg Arg Trp Phe Asp Gly Ala
     <210> 69
     <211> 5
     <212> PRT
     <213> Artificial Sequence
N
     <220>
Ε
     <223> The sequence of the BC loop of clone pLB24.12.
4
     <400> 69
     Cys Asn Trp Arg Arg
     <210> 70
     <211> 7
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone pLB24.12.
     <400> 70
    Arg Ala Tyr Arg Tyr Arg Trp
    <210> 71
     <211> 5
    <212> PRT
    <213> Unknown
    <220>
    <223> The sequence of the BC loop of WT from library #4.
```

```
<400> 71
     Ala Val Thr Val Arg
     <210> 72
     <211> 5
     <212> PRT
     <213> Unknown
     <220>
     <223> The sequence of the FG loop of WT from library #4.
     <400> 72
     Gly Arg Gly Asp Ser
     <210> 73
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB25.1.
     <400> 73
     Gly Gln Arg Thr Phe
      1
L
     <210> 74
     <211> 5
<212> PRT
Ŋ
     <213> Artificial Sequence
æ
<220>
     <223> The sequence of the FG loop of clone pLB25.1.
     <400> 74
     Arg Arg Trp Trp Ala
     1
                      5
     <210> 75
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB25.2.
    <400> 75
    Gly Gln Arg Thr Phe
    <210> 76
    <211> 5
    <212> PRT
    <213> Artificial Sequence
    <220>
```

```
<223> The sequence of the FG loop of clone pLB25.2.
     <400> 76
     Arg Arg Trp Trp Ala
     <210> 77
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone pLB25.3.
     <400> 77
     Gly Gln Arg Thr Phe
     <210> 78
     <211> 5
     <212> PRT
     <213> Artificial Sequence
Ú
     <223> The sequence of the FG loop of clone pLB25.3.
<400> 78
     Arg Arg Trp Trp Ala
      1
<u>l</u>
     <210> 79
TU
     <211> 5
     <212> PRT
C
     <213> Artificial Sequence
ب<sup>اري</sup>ة
1
     <220>
1
     <223> The sequence of the BC loop of clone pLB25.4.
H
<400> 79
h
     Leu Arg Tyr Arg Ser
      1
                       5
     <210> 80
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone pLB25.4.
     <400> 80
     Gly Trp Arg Trp Arg
     <210> 81
     <211> 5
     <212> PRT
     <213> Artificial Sequence
```

```
<220>
     <223> The sequence of the BC loop of clone pLB25.5.
     <400> 81
     Gly Gln Arg Thr Phe
     <210> 82
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone pLB25.5.
     <400> 82
     Arg Arg Trp Trp Ala
     <210> 83
     <211> 5
     <212> PRT
     <213> Artificial Sequence
Ü
     <223> The sequence of the BC loop of clone pLB25.6.
<400> 83
     Gly Gln Arg Thr Phe
     1
1
T.
     <210> 84
     <211> 5
<212> PRT
     <213> Artificial Sequence
ļ.
     <223> The sequence of the FG loop of clone pLB25.6.
     <400> 84
    Arg Arg Trp Trp Ala
    <210> 85
    <211> 5
    <212> PRT
    <213> Artificial Sequence
    <220>
    <223> The sequence of the BC loop of clone pLB25.7.
    <400> 85
    Leu Arg Tyr Arg Ser
    <210> 86
    <211> 5
    <212> PRT
```

```
<213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone pLB25.7.
     <400> 86
     Gly Trp Arg Trp Arg
     <210> 87
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone pLB25.9.
     <400> 87
     Leu Arg Tyr Arg Ser
     <210> 88
     <211> 5
     <212> PRT
     <213> Artificial Sequence
<223> The sequence of the FG loop of clone pLB25.9.
     <400> 88
     Gly Trp Arg Trp Arg
5
<210> 89
<211> 5
Ы
     <212> PRT
     <213> Artificial Sequence
<223> The sequence of the BC loop of clone pLB25.11.
    <400> 89
    Gly Gln Arg Thr Phe
     1
    <210> 90
    <211> 5
    <212> PRT
    <213> Artificial Sequence
    <223> The sequence of the FG loop of clone pLB25.11.
    <400> 90
    Arg Arg Trp Trp Ala
    <210> 91
```

```
<211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the BC loop of clone pLB25.12.
     <400> 91
     Leu Arg Tyr Arg Ser
     <210> 92
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone pLB25.12.
     <400> 92
     Gly Trp Arg Trp Arg
     <210> 93
Ų
     <211> 15
     <212> DNA
<213> Unknown
     <223> The sequence of the BC loop of WT from Table 7.
N
     <400> 93
=
    gcagttaccg tgcgt
                                                                              15
<210> 94
-
     <211> 5
     <212> PRT
ļ.
     <213> Unknown
-
    <223> The sequence of the BC loop of WT from Table 7.
     <400> 94
    Ala Val Thr Val Arg
     1
    <210> 95
    <211> 24
    <212> DNA
    <213> Unknown
    <223> The sequence of the FG loop of WT from Table 7.
    ggccgtggtg acagcccagc gagc
                                                                             24
    <210> 96
```

```
<211> 8
      <212> PRT
      <213> Unknown
     <223> The sequence of the FG loop of WT from Table 7.
     <400> 96
     Gly Arg Gly Asp Ser Pro Ala Ser
     <210> 97
     <211> 15
     <212> DNA
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone 1 from Table
     <400> 97
     tcgaggttgc ggcgg
                                                                                15
<210> 98
Ų
     <211> 5
     <212> PRT
<213> Artificial Sequence
     <223> The sequence of the BC loop of clone 1 from Table
           7.
'n
#
     <400> 98
Z
     Ser Arg Leu Arg Arg
Awall
Jack
     <210> 99
.
Sadia
     <211> 15
     <212> DNA
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone 1 from Table
           7.
     <400> 99
     ccgccgtgga gggtg
                                                                               15
     <210> 100
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone 1 from Table
     <400> 100
```

. . . .

```
Pro Pro Trp Arg Val
      <210> 101
      <211> 15
      <212> DNA
      <213> Artificial Sequence
      <220>
      <223> The sequence of the BC loop of clone 2 from Table
     <400> 101
     ggtcagcgaa ctttt
                                                                               15
     <210> 102
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone 2 from Table
<400> 102
     Gly Gln Arg Thr Phe
      1
     <210> 103
     <211> 15
     <212> DNA
FU
     <213> Artificial Sequence
<220>
     <223> The sequence of the FG loop of clone 2 from Table
والمعرو
7.
H
     <400> 103
     aggcggtggt gggct
                                                                               15
     <210> 104
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <223> The sequence of the FG loop of clone 2 from Table
           7.
     <400> 104
    Arg Arg Trp Trp Ala
    <210> 105
     <211> 15
     <212> DNA
     <213> Artificial Sequence
```

. . .

```
<220>
     <223> The sequence of the BC loop of clone 3 from Table
     <400> 105
     gcgaggtgga cgctt
                                                                               15
     <210> 106
     <211> 5
     <212> PRT
     <213> Artificial Sequence
     <220>
     <223> The sequence of the BC loop of clone 3 from Table
     <400> 106
     Ala Arg Trp Thr Leu
     <210> 107
     <211> 15
     <212> DNA
     <213> Artificial Sequence
     <220>
     <223> The sequence of the FG loop of clone 3 from Table
     <400> 107
     aggcggtggt ggtgg
                                                                               15
N
     <210> 108
₽
     <211> 5
     <212> PRT
     <213> Artificial Sequence
واعط
<223> The sequence of the FG loop of clone 3 from Table
           7.
     <400> 108
    Arg Arg Trp Trp Trp
    <210> 109
     <211> 5
     <212> PRT
    <213> Artificial Sequence
    <220>
    <223> A solubility tail.
    <400> 109
    Gly Lys Lys Gly Lys
     1
    <210> 110
```

<211> 96

```
<212> PRT
 <213> Artificial Sequence
 <223> The synthetic Fn3 gene.
 <400> 110
 Met Gln Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr
 Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val Thr Val Arg
 Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln
                              40
 Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu
                         55
 Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val Thr Gly Arg
                     70
                                          75
 Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg Thr
                                     90
 <210> 111
 <211> 308
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> The designed Fn3 gene.
<400> 111
catatgcagg tttctgatgt tccgcgtgac ctggaagttg ttgctgcgac cccgactagc
                                                                         60
ctgctgatca gctgggatgc tcctgcagtt accgtgcgtt attaccgtat cacgtacggt
                                                                        120
gaaaccggtg gtaactcccc ggttcaggaa ttcactgtac ctggttccaa gtctactgct
                                                                        180
accatcageg geetgaaace gggtgtegae tataceatea etgtataege tgttaetgge
                                                                        240
cgtggtgaca gcccagcgag ctccaagcca atctcgatta actaccgtac ctagtaactc
                                                                        300
gaggatcc
                                                                        308
<210> 112
<211> 96
<212> PRT
<213> Artificial Sequence
<220>
<223> The designed Fn3 gene.
<400> 112
Met Gln Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr
Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val Thr Val Arg
Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln
                             40
Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu
Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val Thr Gly Arg
                    70
                                         75
Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg Thr
```

```
<400> 114
     Met Gly Ser Ser His His His His His Ser Ser Gly Leu Val Pro
     Arg Gly Ser His
                 20
     <210> 115
     <211> 10
     <212> PRT
     <213> Artificial Sequence
<223> A sequence from clone Plb25.1.
T.J.
     <400> 115
     Gly Gln Arg Thr Phe Arg Arg Trp Trp Ala
      1
T
     <210> 116
     <211> 10
     <212> PRT
     <213> Artificial Sequence
#
     <220>
H
     <223> A sequence from clone Plb25.4.
     <400> 116
    Leu Arg Tyr Arg Ser Gly Trp Arg Trp Arg
     <210> 117
     <211> 12
     <212> PRT
```

<213> Artificial Sequence

<223> A sequence from clone pLB24.1.

<220>

<400> 117

<210> 118 <211> 12 <212> PRT

.. ...

<210> 113

<400> 113 000

<210> 114 <211> 20 <212> PRT

<220>

<213> Artificial Sequence

<223> A fusion protein.

```
Cys Asn Trp Arg Arg Arg Ala Tyr Arg Tyr Trp Arg
                                     10
                                        25
```

10

```
<213> Artificial Sequence
<220>
<223> A sequence from clone pLB24.3.
<400> 118
Ala Arg Met Arg Glu Arg Trp Leu Arg Gly Arg Tyr
                 5
<210> 119
<211> 4
<212> PRT
<213> Homo sapiens
<400> 119
Glu Ile Asp Lys
<210> 120
<211> 4
<212> PRT
<213> Unknown
<223> Anti-hen egg lysozyme (HEL) antibody.
<400> 120
Arg Asp Tyr Arg
1
<210> 121
<211> 96
<212> PRT
<213> Homo sapiens
<400> 121
Met Gln Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr
                                    10
Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val Thr Val Arg
Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln
                            40
Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu
                        55
Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val Thr Gly Arg
                    70
                                        75
Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg Thr
```